

What is an Ecozone?

An ecozone is a large geographical area in which human activities interact with the natural world.

An ecozone is just like a bioregion but much larger.

A bioregion might have a five hectare swamp, whereas an ecozone can include all the swamps, bogs, forests, and meadows in a mixed forest.

Canada is currently divided into 15 terrestrial ecozones and 5 marine ecozones; each having an area of at least 200 000 square kilometers.

By studying ecozones, geographers are able to find out what effect people are having on the landforms, climate, soil, river systems, natural vegetation and wildlife.

Explain what an ecozone is in your own words.

Why did geographers create the idea

Use the map on page 74-75 to find out what ecozone you live in

An Ecozone is Not a Biome

As large as ecozones are in scale, they are smaller than biomes.

A biome is a scientific term used to describe a very large area with a typical community of plants and animals.

Biomes are organized into zones based on plants that provide food and habitat for certain animal species.

Biomes do not consider the impact of human population and activities on nature.

The biomes are shaped by the factors such as temperature, precipitation, and landforms

What is a biome?

What is a difference between a biome and an ecozone?

Identify two reasons why biomes change as you go north?

Ecozone Boundaries

A boundary is a line that divides one area from another.

A good example is a line on a map that shows the political division between countries.

The boundaries between ecozones are not exact because physical and human characteristics can be shared by neighbouring ecozones.

Ecozones combine many different physical and human characteristics at once: landforms, climate, soils, flora, fauna and human activities.

The distribution of each characteristic on the Earth's surface is not identical.

This is why a huge area like the Canadian Shield is actually shared by four ecozones.

Ecozone boundary lines on a map are not exactly as they look.

Look at the diagrams on pg 71, does nature change like figure (a) or (b)

Why is it more difficult to draw ecozone boundaries than it is to draw national boundaries?

Why is it possible for a region to have more than one ecozone?

Transition Zones

It is easier to see the typical characteristics of an ecozone in the center of the region.

Out along the edges of an ecozone it is more difficult to see typical characteristics.

Transition Zones- an area in which the characteristics of one region gradually blend into the next.

Location B contains a mixture of natural vegetation, soils, and wildlife found in the two neighbouring regions.

Although maps show sharp lines between ecozones, there are actually transition zones of shared characteristics between ecozones.

If you tried to divide everybody in the class into groups based on postal codes or hair color, would you experience any difficulties?

Define transition zone in your own words. Use another example, such as a city or town to explain the idea

Ecozones of Canada

Look at the map on pages 74-75

Which of the landscape paintings do you like the most? What ecozone does it show?

What ecozone does Laurentian Hills show?

Which ecozone does the Spring, Lower Canada show?

Issues in Selected Ecozones: Mixedwood Plains

Narrow band that stretches across south central Canada

Densely populated and heavily industrialized. Pollution is a pressing issue.

Air pollution caused by **smog** is dangerous for people, especially for those with breathing problems.

The smog warnings are more frequent in the summer months when there is intense sunshine, increased humidity and limited rainfall.

Land pollution is another major issue. Major cities find it harder to dispose of their garbage.

Water pollution is also a hazard caused by industrial waste and urban sewage.

Locate the Mixedwood Plains using the ecozone map. Describe it's general size and location in Canada.

Explain three major issues affecting the Mixedwood Plains ecozone

Boreal Shield Ecozone

This huge area stretches from Saskatchewan all the way to Newfoundland.

Acid rain from industries and power plants in the US and Canada is affecting lakes, soil and forests.

Toxic Chemicals are building in the river systems that are used for electric power dams, pulp and paper mills.

Forests are changing, not only because of tree clearing but a limited number of tree species are being replanted.

The Boreal Shield stretches across five provinces. Name them

Choose two issues affecting the Boreal Shield ecozone. Explain how each one is problematic for all people in the region

Pacific Maritime Ecozone

Rich in natural resources. The use of these resources is very important to the region.

Canadian and American boats overfishing, has hurt commercial Salmon fishing.

Pollution has also affected salmon populations because it has affected the spawning beds, where the fish lay their eggs.

The forest industry is the most important economic activity in this ecozone.

Clear cutting is a cheap way to cut lumber, but it has destroyed whole ecological communities.

What are the two most important resources in this area?

Why are people protesting the clear cutting of some forests?

Taiga Plains Ecozone

Northwest Canada and it has harsh conditions.

This area relies on tourism, and traditional hunting and fishing.

Most live in small communities along the Mackenzie river.

This river system is one of the longest in the world, providing a natural corridor and transportation route.

Talks about putting in a gas/oil pipeline. Some worry about the environmental and cultural problems while others welcome jobs that a natural gas pipeline would bring to the region.

Locate the Taiga Plains ecozone on the map. Describe its location in Canada. What provinces and territories are part of this ecozone.

Explain what you think should be done with regards to the pipeline.